Table A-6. Mean number of research users of instrument systems deemed state-of-the-art, by detailed type of instrument and type of user: 1993

Detailed type of instrument	Mean number of research users per system					
	All users	Faculty of host department/ facility	Graduate students and postdoctorates from host department/ facility	Researchers from other departments/ facilities of host institution	Researchers outside the host institution	All other users
Total, all instruments[1]	25.7	3.7	8.4	6.3	5.1	2.3
Computers and data handling instruments	88.5	7.9	17.4	43.1	5.1	14.9
Computers/components costing:						
$1,000,000 and over	S	S	S	S	S	S
$500,000 - $999,999	53.5	9.3	27.5	7.8	6.0	2.9
$50,000 - $499,999	100.6	18.8	26.7	4.2	1.1	49.7
$20,000 - $49,999	84.1	3.3	13.2	60.4	6.7	.5
Chromatographs and spectrometers	14.0	2.8	6.8	1.6	1.0	1.7
Chromatographs and elemental analyzers	13.8	2.6	4.6	1.7	.9	3.9
Electron/auger/ion scattering	10.0	1.5	6.6	1.3	.4	.2
UV/visible/infrared spectrophotometer	7.2	1.4	4.9	.4	.2	.3
NMR/EPR spectrometer	27.1	5.0	17.3	3.0	1.8	.0
Xray diffraction systems	20.6	4.9	12.0	2.0	.9	.8
Other spectroscopy instruments	15.4	3.3	8.2	2.1	1.7	.1
Microscopy instruments	18.2	4.1	7.2	5.3	1.2	.4
Electron microscopes	25.2	5.1	9.9	6.3	3.1	.7
Other microscopy instruments	15.5	3.7	6.1	4.9	.4	.3
Bioanalytical instruments	20.4	4.3	10.1	3.2	2.0	.7
Cell sorters/counters, cytometers	24.6	3.1	7.3	13.3	1.0	.0
Centrifuges and accessories	16.1	4.4	10.3	1.2	.2	.2
DNA/protein synthesizers/sequencers/ analyzers	26.0	5.4	10.3	8.0	2.3	.1
Growth/environmental chambers	9.0	2.3	5.9	.5	.1	.2
Scintillation/gamma radiation/counters/ detectors	29.8	4.2	11.7	2.9	7.8	3.3
Other instruments	21.2	2.7	6.7	1.5	9.6	.6
Electronics instruments (cameras,etc)	12.6	2.4	7.8	.6	.2	1.6
Temperature/pressure control/ measurement instruments	14.8	3.2	8.5	1.7	1.2	.2
Lasers and optical instruments	6.7	1.5	4.2	.3	.5	.2
Robots, manufacturing machines	9.5	2.2	6.4	.8	.1	-
Telescopes/astronomical	11.6	2.0	4.7	1.2	3.0	.7
Nuclear reactors/nuclear science instrument systems	S	S	S	S	S	S
Research vessels/planes/helicopters	S	S	S	S	S	S
Wind/wave/water/shock tunnels	S	S	S	S	S	S
Molecular/electron/ion beam systems	9.4	2.0	5.4	.6	1.3	.1
Major prototype systems	19.9	3.6	7.7	3.5	3.5	1.7
Other, not elsewhere classified	34.9	3.3	7.1	2.1	21.6	.7

[1] The questionnaire was worded: "State-of-the-art: the most highly developed and scientifically sophisticated equipment of its kind."

NOTE: Data in this table were not collected for supersystems, which are large, integrated instrumentation systems/facilities generally with an aggregate purchase price of $1 million or more.

KEY: - = less than 0.05 users
S = fewer than 10 cases for analysis

SOURCE: National Science Foundation/SRS, Survey of Academic Research Instruments and Instrumentation Needs: 1993